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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/784,665

02/15/2001

Yiqun Wang

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02/03/2009

CROMPTON, SEAGER & TUFTE, LLC

1221 NICOLLET AVENUE

SUITE 800

MINNEAPOLIS, MN 55403-2420

EXAMINER

HORNBERGER, JENNIFER LEA

ART UNIT

PAPER NUMBER

3734

MAIL DATE

DELIVERY MODE

02/03/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/784,665	Applicant(s) WANG ET AL.	
	Examiner JENNIFER L. HORNBERGER	Art Unit 3734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22,24-28 and 30-36 is/are pending in the application.
- 4a) Of the above claim(s) 31-34 and 36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22,24-28,30 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Status of Claims

1. Claims 22, 24-28, and 30-36 are pending in the instant application and claims 1-21, 23, and 29 have been cancelled. Claims 31-34 and 36 are previously withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 22, 24-28, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson et al. (US 5,637,086) in view of Foley (US 3,409,016).

Regarding claim 22, Ferguson et al. disclose a catheter (10) comprising an elongate catheter shaft (11) having a proximal end and a distal end, a guide wire lumen (15) defined therein, an inflation lumen (14) defined therein; a balloon (15) disposed adjacent the distal end of the catheter shaft. Ferguson et al. show the balloon being in fluid communication with the inflation lumen (Fig. 1). Ferguson et al. further disclose a port (port at the proximal most end of 24) disposed at the proximal end of the catheter shaft, the port inherently having an opening defined therein that is in fluid communication with the inflation lumen (see col.4, lines 39-42; Fig. 1) and a flanged end (proximal end portion of 24 is flanged as shown in figure 1). Ferguson et al. lack a seal member attached to the flanged end and covering the opening. However, Foley discloses a balloon catheter with a seal/plug (fig.4, 38) disposed at the proximal most end of an inflation port (port through 36 where 38 is engaged) covering the opening through the port. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ferguson et al. in order to provide a seal for the purposes of preventing

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fluid passage through the port as taught by Foley (col.3, lines 71-74). Thus, the seal of Foley is releasably attached to the flanged region in the sense that it is capable of being removed.

Regarding claim 24, Ferguson et al. in view of Foley disclose the top portion of the seal engaging the proximal end portion of the port is generally planar (Foley, Fig. 4).

Regarding claim 25, Ferguson et al. as modified by Foley fails to disclose the seal extending laterally beyond the flanged end of the port. However, whether a seal extends beyond the flanged end is a design consideration, which depends on the size and shape of the flange and seal. One of ordinary skills in the art would be motivated to make the seal such that it can extend laterally beyond the flanged end of the port to provide a stronger supporting structure for structure supported by the seal, i.e., needle/syringe used for inflating the catheter balloon. Furthermore, an extended seal that covers beyond the flange leaves no room for airflow through the opening periphery of the port, thus better seals the port.

Regarding claim 26, Foley in col.4, lines 5 and 6 teaches "a needle penetrated" the seal (38). Figure 4 of Foley further shows a needle piercing the seal (38). Thus the seal of Foley is pierceable.

Regarding claim 27, Foley discloses seal (38) is self-sealing (col. 3, ln. 71-72).

Regarding claim 28, Foley discloses the seal defines the proximal-most end of the port (Fig. 4).

Regarding claim 35, Ferguson et al. disclose a balloon catheter (10) comprising an elongate catheter shaft (11) having a proximal end region, a proximal port (port at the proximal most end of 24) disposed adjacent the proximal end region, a distal end region, and an inflation lumen (14) extending between the port and the balloon; wherein the port includes a proximal end, a proximal flange, and a proximal end surface defined by the proximal end and the

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proximal flange (Fig.1). Ferguson et al. fails to disclose a seal. Ferguson et al. in view of Foley teach a seal as applied for claim 22.

4. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson et al. (US 5,637,086) in view of Foley (US 3,409,016) and in view of Walker (US 5,322,513).

Regarding claim 30, Ferguson et al. fail to disclose a cap over the seal. However, Walker discloses a cap (48) fitted over a seal (col.7, lines 60-67) to cover a port (51; Fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ferguson et al. in order to provide a cap over the seal for the purposes of cover the passage through the a port as taught by Walker. One of ordinary skill in the art furthermore would be motivated to provide a cover over the seal for the purposes of keeping the seal sterile.

Response to Arguments

5. Applicant's arguments filed 03/20/2008 have been fully considered but they are not persuasive. The examiner respectfully disagrees with applicant's argument that Foley does not teach a seal that is releasably attached. The seal of Foley is capable of being removed from the proximal port and is, therefore, interpreted to be releasably attached to the flanged end of port.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER L. HORNBERGER whose telephone number is (571)270-3642. The examiner can normally be reached on Monday through Friday from 8am-5pm, Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Todd Manahan can be reached on (571)272-4713. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jlh
01/27/2009

/Todd E Manahan/
Supervisory Patent Examiner, Art Unit 3734



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Fax Cover Sheet

Date: 03 Feb 2009

To:	From: ELIZABETH HOUSTON
Application/Control Number: 09/784,665	Art Unit: 3731
Fax No.:	Phone No.: (571) 272-7134
Voice No.: 612-677-9050	Return Fax No.: (571) 273-8300
Re:	CC:

☐ **Urgent** ☐ **For Review** ☐ **For Comment** ☐ **For Reply** ☐ **Per Your Request**

Comments:

Number of pages __ **including this page**

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